SCOTTISH VENISON

AN INDUSTRY REVIEW, 2010

ACKNOWLEDGMENTS

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All illustrations and diagrams produced by Ruaridh McKellar.

PREFACE

The contents of this Report are confidential and may not be disclosed or reproduced without the permission of the Scottish Venison Working Group or the Deer Commission for Scotland.

Every effort has been taken by the Authors to ensure accuracy in the researching, representation and presenting of these findings.

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EXECUTIVE SUMMARY

The aim of this report is to provide an overview of the current position of the Scottish Venison Industry in 2010, with particular emphasis on wild produced venison, and further to make high-level strategic recommendations for further consideration.

This report concludes that the industry has reached an important and critical stage in its development. Demand for Scottish venison is high and set to increase, whilst the projected supply of wild venison has levelled out and is set to remain at current levels for the foreseeable future, leading inevitably to a fall in supply relative to an increasing demand.

The industry is characterised by fragmented production and inefficiency, burdened by high overhead costs and subject to seasonal limitations. Central to this is a traditionally held view that sees venison production as a by-product of the need to manage wild deer populations and of stalking for sport. This attitude was expressed most clearly in a Westminster Government Parliamentary Office Postnote, Feb. 2009:- "… *sales (of venison) tend only to serve to defray the costs of deer management rather than to drive it*".

However, there is growing evidence of the start of a shift away from this attitude amongst some producers. It is clear, however, that the future success of the industry will depend on this mind-shift taking a further and more extensive hold. The success of the Scottish Wild Venison Assurance Scheme provides cause for optimism in this connection and should be seen as an important milestone in industry cross-party co-operation.

At this critical stage, to do nothing is not a realistic option for the industry. The growing demand for venison will be taken up by imports, predominantly from New Zealand, this coupled with a failure to drive down inefficiencies and to promote wild venison as a premium brand is likely to lead to a lowering of the price paid to producers.

In turn, this may also lead to an increase in the levels of wild venison being sold directly to restaurants etc by producers, further serving to fragment the industry.

A possible approach, would be to focus on developing wild venison as a premium brand, taking full advantage of the product's iconic status, focussing on its wild and natural provenance. There is significant evidence for the value of this approach from the European markets, where wild shot venison has a premium advantage over farmed and imported products. This approach, however, will not be sufficient of itself to meet the increasing demand for venison and the active promotion and development of deer farming should be viewed as an opportunity, including exploring methods of deer ranching or deer parks.

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INTRODUCTION

This Report was commissioned by the Scottish Venison Working Group (SVWG) and administered through the Deer Commission for Scotland (DCS), with the objective of reviewing the supply chain of Scottish wild venison.

Historically, the Scottish wild venison industry has been generally regarded as a product of Scotland's requirement to manage its deer populations and of recreational stalking. This, I believe, is an out-dated view given the quality of the product, the success of those initial steps to develop the industry and the potential of this industry to be a success in its own right. It is an industry characterised by fragmented production, which in part is reflective of the wide distribution of the Scottish deer population. However, it is also an industry that has reached an important stage in its development and its future success will be dependent on which direction it takes from here.

Much of the information available on the size and nature of this industry is, unfortunately, fragmented and incomplete. This report aims always to use reliably collated or published primary or secondary source data where this is available. However, in the absence of such data, opinions or estimates have been sought from informed opinion leaders in the industry.

By examining the different steps in the supply chain, the different stages of development in the venison industry, and identifying the key determinants of success, this report aims to provide a baseline upon which further more detailed specific research can be based.

This report developed its conclusions through a process of examination of the following areas:

- assessment of the current supply of wild venison across the key market sectors (local, UK and export).

- Assessment of the overall year-on-year trends in the supply and demand of Scottish wild venison over the last ten years.
- The identification of possible sensitivities, including overseas imports and those associated with seasonality.
- The identification of possible likely future trends in the supply and demand, including any possible impact from overseas markets.

It was essential to understand the structure of the industry, its operations and those practical relationships that exist between industry participants. It was also important to understand those developments and changes that have influenced the environment in which the industry operates. This required a general review and analysis of the impact of Government policies on the supply and consumption of wild venison.

RESEARCH METHODOLOGY

In order to establish a set of respected sources of information, a list of key individuals from within the industry was constructed with direct assistance from SVWG and DCS. Initial interviewees helped identify other contacts. After each interview, the data was examined and used as the basis for subsequent interviews including areas of disagreement. A parallel activity was the collation of data from industry body websites and publications as well as government and other commentaries on the industry. Details of those reports and publications consulted during the course of this study are presented within the Bibliography section of this report.

The information derived from these sources was then integrated within a value chain framework in an attempt to answer the key objective questions outlined in the introduction and in an attempt to cast light on what was perceived to be key drivers of this industry.

A total of twenty three interviews have been conducted. These interviews were conducted with personnel from a wide range of businesses and organisations involved in each aspect, either at present or in the recent past (fig 1). Interviews were based mainly on open-ended questions.

Figure 1: Interviewees (further details Appendix 1)

Interviewed	**Number**
Estates	5
Forestry Commission	3
Game Dealers (large)	3
Other Processors	3
Deer Farmers	2
Game Keeper	1
Supermarkets / multiples	2
Others	4

BACKGROUND

Scotland has four species of wild deer: Red (*Cervus elaphus*), Roe (*Capreolus caperolus*), Sika (*Cervus nippon*) and Fallow (*Dama dama*), but only Red and Roe are native. Red deer, the largest native land mammal in the United Kingdom are found mainly on open hill ranges but also in woodlands and plantations. Roe deer are the most widely distributed in woodland areas throughout mainland Scotland.

Sika and fallow deer have become established as a result of deliberate releases and escapes from deer parks. Fallow deer were introduced from the Mediterranean to England, possibly during the 11th or 12th centuries. They occur in Scotland mostly around areas where they were originally kept in captivity. Sika deer were introduced from Japan into UK deer parks in the 19th century and the earliest records of their escape from captivity date from the 1920s. They are more widespread than fallow, with populations spreading in the south, west and north of Scotland.

"Close Seasons" are those periods during the year when the shooting or hunting of deer is generally prohibited by law, although there are exemptions. Close Seasons do not prevent the shooting of deer in all circumstances but seek to prevent certain groups in specific circumstances from doing so without authorisation from DCS. Current legislation allows owner-occupies to shoot deer during the Close Season where their crops are being damaged or there is a risk of them being damaged. Under new proposals currently being considered, this right may be removed. Ministers are currently obliged to set Close Seasons for female deer and may set Close Seasons for males of each species.

Figure 2: Close Seasons – dates when deer may be culled

Species	Gender	Dates
Red, Sika, Hybrids	Stags	21 Oct – 30 Jun
	Hinds	16 Feb – 20 Oct
Fallow	Buck	1 May – 31 Jul
	Doe	16 Feb – 20 Oct
Roe	Buck	21 Oct – 31 Mar
	Doe	1 Apr – 20 Oct

VENISON WORLDWIDE

Most of the World's supply of venison is produced by the wild herds of northern Europe, North America and Russia and from farmed deer in New Zealand. Reindeer are the most commonly farmed type and are found in Canada, Russia and the Scandinavian countries. Russia has the largest number of deer with an estimated 60% of the world total. New Zealand with around 1 million deer comes in second with 14%; if reindeer were omitted then New Zealand has around 40% of the farmed deer making it the world leader in this type of farming. In Scandinavia and Russia about 80% of the wild kill is estimated to be consumed by the hunters directly with only 20% being sold on commercially.

Germany is generally regarded as the largest importer of venison and is New Zealand's largest export market, accounting for 40% of all venison exported and $119 million of export revenue. Total New Zealand export volumes fell by 12% to 18,700 tonnes for the year ending 31 March 2009. This is reported to be below 20,000 tonnes for the first time in five years. Despite this, venison export prices increased significantly in most international markets, which appeared to offset the fall in export volume. Total New Zealand export revenue increased by 25% to $320 million for the year ended 31 March 2009. This is attributed to higher overseas in-market prices and a weaker New Zealand Dollar.

Between 1988 and 1992 Germany imported 35% less venison from the UK (1,107 tonnes in 1988 reducing to 720 tonnes in 1992) compared with a 341% increase in New Zealand venison (1,128 tonnes increasing to 4,983 tonnes over the same period) and a 106% increase in imports from Poland (2,123 tonnes increasing to 4,382 tonnes over the same period). This coincides with the outbreak of Foot and Mouth disease in the UK in 2001 and the subsequent ban on exports.

Fig. 3 New Zealand Venison Export Volumes and Values (actual and projected)

	2006	2007	2008	2009	2010	2011	2012	2013
Vol. (000 t)	27	25	21	19	18	18	19	19
Value $ mil (£ mil)	213 (100)	260 (122)	256 (120)	320 (150)	322 (151)	324 (152)	328 (154)	346 (163)

(Source: Statistics New Zealand, Agri-Fax and MAF) (Exchange rate: £0.47 = $(NZ)1)

Whilst the purpose of this report is not to provide a review on the success of the New Zealand venison industry, it is worth identifying some interesting observations provided by the New Zealand industry concerning the demand for venison in Europe. Europeans typically consume New Zealand venison during the traditional game season, from October to December, with some further consumption around Easter. Most venison appears to be consumed outside of the household and as such is largely a food service item; in Germany it is typically eaten in workplace canteen situations leading up to Christmas. A significant amount of New Zealand venison appears to be used as ingredients in salamis and sausages. The customers tend to be game traders and wholesalers and are perceived as having been very successful at controlling the market and therefore in determining prices.

It is reported that after twenty years of selling into Germany, New Zealand venison in 2005 had only achieved a brand awareness of less than 3%. There would also appear to be a strong indication that deer shot in European forests is considered superior to New Zealand venison; this has led to a view amongst New Zealand deer farmers that this is used to keep prices down.

The value proposition would appear to be consistent quality and country of origin as well as availability to meet seasonal demand. However, it is reported that the German market is of limited size: 300,000 - 400,000 carcasses, supply above or below this tends to produce significant price fluctuations. Interestingly this seasonal demand appears to put pressure on storage requirements with the seasonal kill in New Zealand being up to eight months before the European seasonal demand for product.

The New Zealand venison industry is characterised by fluctuations in production and returns. The price of venison in the main European markets has fluctuated by an average of nearly 20% each year over the past decade. Either responding to these price fluctuations, or causing them, venison production has changed by an average of 12% per annum over the same period. Lack of profitability led to a 30% decrease in the number of farmed deer between 2002 and 2007. The expectation of volatility is the primary reason attributed to the discouragement of new investment. Venison production remains out of sync with the main consumption period of its export market.

Fig.4 New Zealand Venison Exports 2008/09

Total Destinations by Volume (Value $273 million (£128 million))

Country of Export	% Volume Exported
Germany	39%
Belgium	10%
Sweden	9%
France	9%
Switzerland	6%
Netherlands	5%
Austria	5%
USA	5%
Others	12%

The New Zealand venison industry has identified five key industry strategies in the context of its *2009 – 2014 Strategic Intent* document, these are outlined in more detail in Appendix 3.

Deer farming in the United States started in the early 1970's and reports suggest that the US's share in the global market place continues to grow as greater venison availability is encouraging more aggressive marketing. The US produces 20% of the venison needed to supply the domestic market and this market has grown 25 to 30% annually. With more than 269,000 red, fallow, sika, elk and white-tailed deer being raised commercially on game preserves, farms and ranches.

Canada has consistently imported more venison than it has exported over the last nine years with the bulk of the imports being from New Zealand, see fig 5 below. Canadian venison production whilst peaking at 11,000 head in 2003, has steadily declined in this time to around 5,000 head in 2008.

Fig 5 Canadian Venison Production, Import and Exports

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Produced (Head)	4,853	6,933	8,094	11,096	7,373	6,126	6,550	4,849	4,947
Exported (Tonnes)	33.5	35	27	2	66	36	24	15.5	10
Imported (Tonnes)	48	54	68	55	60	83.7	116	73	61.9

Statistics from the Australian Government suggest that in 1997-98 there were about 190,000 farmed deer in Australia and that the national herd increased until the onset of drought in 2002, but has declined significantly since that time and was estimated in 2005 to be about 150,000 head. In 2000 – 2001, 1,680 tonnes of venison was processed (some 50,000 carcasses) with over 90% of this venison being exported to the European Union and South-East Asia. The number of animals processed annually has continued to increase, despite downward trends in venison prices. Interestingly, a large number of female animals have been processed in recent years which may suggest that the industry's production capacity is being reduced. This observation is further supported by an apparent increase in the number of whole herds being committed for processing; it is likely that future years will see a significant drop in production.

Australia imports a significant volume of venison from New Zealand (estimated to be in excess of 1,000 tonnes per annum) with New Zealand reportedly increasing its share of the Australian quality assured market during the great drought of 2002.

The largest production of venison is from the reindeer herds of Scandinavia (10%) and Russia (60%). This meat is largely consumed locally and is therefore judged to have little impact on world trade.

SCOTTISH WILD VENISON SUPPLY AND TRENDS IN WHOLESALE PRICE

Estimation of the population size and densities of Scottish wild deer is difficult, particularly so for species inhabiting woodland. Different types of compiling abundance estimates are used depending on the deer species under investigation and the type of habitat. Based on statutory Cull Returns (DCS 2008/09), and assuming that the annual cull represents approximately 16-17% of the total population (although in reality it is probably less than this), this equates to an estimated wild deer population of all four species of 630,000 (384,000 red, 200,000 roe, 32,000 sika and 11,000 fallow) and produces an annual outturn of approximately 3,500 tonnes of venison. (*Estimate method based on that used by Munro, R; Report on the Deer Industry in Great Britain, 2002*)

The Forestry Commission is the largest single supplier of venison with an estimated outturn of 439 tonnes, which they estimate generates a net loss per annum of £3.5 million - £4 million (*Ref: interview*). Those sporting estates interviewed as part of this research, similarly concurred that there was little if any profit to be made through the commercial selling of traditional deer stalking, with any margin typically being made on associated hospitality and accommodation. Many estates will only book stalking parties with estate accommodation. Current venison prices are around £1.50 per kilogram and stand, in real terms, at about 50% of the price in 1980. It is generally held that sales tend only to serve to defray the costs of deer management rather than to drive it. (*Ref: Parliamentary Office of Science and Technology Postnote, Feb 2009, No. 325 Wild Deer*.)

Deer management is undoubtedly an important and significant employer with an estimated 966 full time and 1,555 indirect full time equivalent employees in Scotland. PACEC estimates a total value on the Scottish deer management industry (including related goods and services) of £105 million per annum, with an annual value of employment in the industry of approximately £70.4 million.

The Forestry Commission estimates the wholesale market for wild Scottish venison to be as follows:

Figure 6 Estimated Production Totals and Wholesale Value of Scottish Wild Venison

Year	Production (Tonnes)	Estimated Wholesale Value
1990	800	£0.8 million
2000	2,600	£2.6 million
2005	3,500	£3.5 million

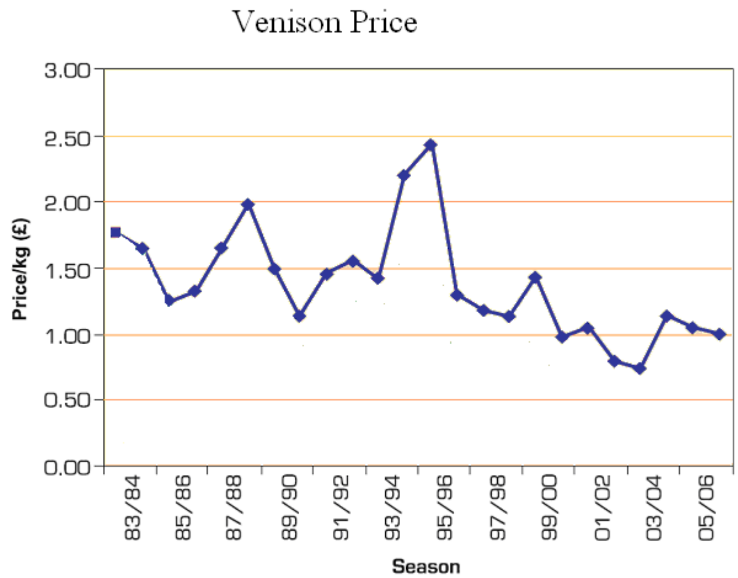
Source: Forestry Commission

N.B. Wholesale, in this context, refers to the sale from supplier to licensed processor/game dealers.

In Scotland, the price paid per kilogram dropped in 1995/96 from approx. £2.45 to £1.30 per kilogram on average, it dropped further in 1999/2000 from approx. £1.45 to £1 and then to £0.75 in 2001/2002, before recovering back to £1 and then climbing again to the current average of £1.50 per kilogram (range: £1 - £3) fig 7. It should be noted that not all venison is sold to licensed game dealers with an increasing proportion over this period (detailed later) being retained and/or sold directly to the consumer.

The 1997 Cobham Report, reported an annual Cull of 60,000 producing 2,300 tonnes with a post processing value of £8.9 million and a consumer retail value of £18.4 million. (*Ref: Cobham, R., et al, 1997, Countryside Sports: Their Economic, Social and Conservation significance, Cobham Resource Consultants. Referenced in Scottish Wild Game Feasibility Study, SAOS*).

Figure 7a Changes in Wholesale Venison Prices Between 1983/84 and 2005/06



N.B. Where the Wholesale Price is that paid to suppliers by game dealers.

In 2001, the export market which was estimated to be worth £4.3 million (this is based on a post-processing wholesale value), accounting for some 60% of the Scottish wild venison market, was closed due to the restrictions imposed by the Foot and Mouth outbreak (during February to October 2001; over 10 million sheep and cattle were slaughtered. The total cost of this outbreak was estimated at £8 billion of which the cost to Scottish agriculture was estimated to be £231 million plus the gross loss to tourism and other industries). In 1997, a major game dealer reported that they exported all of their wild venison but by 2006 export accounted for approximately 40%.

Population numbers greatly influence the supply; it is however generally held that current levels of venison production are sustainable from wild populations. Smaller species such as roe are less economical to process.

Fig 8 Estimated Average Weight (Larder) by Deer Species

Species of Deer	Average Dead Weight (in Kilograms)
Red	47
Roe	12
Sika	24
Fallow	22

N.B. A number of factors (such as seasonal factors) influence the weight of all species of deer; the above is an estimated figure based on the mean weights used by Forestry Commission Scotland. In practical terms, it is an average value for the combined stag and hind of each species. Please also note that these estimated weights were used in subsequent calculations detailed below.

The Deer Commission for Scotland compiles data from Statutory Cull Returns and Venison Returns. Licensed Game Dealers are required to keep records of the numbers and species of carcasses that they handle. These records record the number of deer that are processed through licensed dealers.

All systems of Cull data gathering which rely on third party recording are prone to under-reporting through, for instance, non-submission of returns or inaccurate returns or records. The greatest area of sensitivity with respect to under reporting is in the area of domestic consumption where carcasses are eaten at home or given to friends and family or sold to hotels and restaurants et al directly, as opposed to being sold to a licensed game dealer. One method to estimate domestic consumption is to compare the Cull Returns with Venison Returns, figures 9 and 10.

Figure 9 Venison Production, Quantity Sold to Game Dealers and Estimated Values

Year	Estimated Total Vol. Venison Cull Returns (Tonnes)	Estimated [Wholesale] Value (£) Cull Returns	Estimated Total Vol. Processed Venison Returns (T)	Est. Wholesale Value Paid to Producers
2002/03	3,196	£3.2m	2,613	£2.6m
2003/04	3,437	£3.4m	2,428	£2.4m
2004/05	3,753	£3.7m	2,919	£2.9m
2005/06	3,549	£3.5m	2,227	£2.2m
2006/07	3,495	£5.2m	2,552	£3.8m
2007/08	3,482	£5.2m	2,235	£3.3m
2008/09	3,438	£5.1m	2,424	£3.6m

Figure 10 The Quantity of Venison Produced But Not Sold through Game Dealers

Year	Weight (Tonnes)	As % of Total Annual Cull
2002/03	583	18%
2003/04	1,009	29%
2004/05	834	22%
2005/06	1,322	37%
2006/07	943	27%
2007/08	1,247	36%
2008/09	1,014	29%

Careful analysis of Cull and Venison Returns over the last ten years produce the following observations.

Fig 11 Red Deer Comparison of Cull and Venison Returns over a 10 year period

Year	Cull Returns	Venison Returns	Difference	As %
1999/2000	70,962	62,070	8,892	12.5
2000/2001	66,931	54,449	12,449	18.6
2001/2002	67,282	58,649	8,633	13
2002/2003	57,363	46,404	10,959	19
2003/2004	61,957	43,224	18,733	30
2004/2005	68,610	53,741	14,869	21.7
2005/2006	63,611	39,552	24,059	37.8
2006/2007	62,563	46,364	16,199	25.9
2007/2008	62,414	39,837	22,577	36.2
2008/2009	61,458	41,961	19,497	31.7

Fig 12 Roe Deer Comparison of Cull and Venison Returns over a 10 year period

Year	Cull Returns	Venison Returns	Difference	As %
1999/2000	30,222	28,996	1,226	4
2000/2001	26,214	23,303	2,911	11
2001/2002	29,392	24,726	4,666	16
2002/2003	31,117	28,683	2,434	7.8
2003/2004	32,913	26,057	6,856	21
2004/2005	32,264	25,914	6,350	20
2005/2006	33,264	22,852	10,745	32
2006/2007	31,808	22,937	8,871	27
2007/2008	31,755	22,239	9,516	30
2008/2009	32,089	27,314	4,775	15

The picture with red deer over the last ten years from 1999/00 is that the Cull Returns have remained consistent, averaging approximately 65,000 per annum. However, over this same period the gap has widened between the Cull Returns and the Venison Returns increasing from a 12% difference in Venison returns to a 30% difference over the same ten year period.

A similar pattern is repeated with roe deer with the average Cull Returns over the same ten year period and a growing short fall between this and the Venison Returns increasing from 4% to approximately 30% difference, before dropping back to a 15% difference in 2008/09

The trend is less pronounced with sika and fallow deer. However, sika deer show a consistently average Venison Return short fall of 38% against average Cull Returns of approximately 5,000, with fallow showing an average Cull return of 1,374 and a relatively constant 38% average Venison Return short fall. This tends to suggest that these species of deer are more likely to be perhaps retained for personal consumption or sold directly and not through a game dealer.

Without further, more detailed investigation, it is not possible to come to a definitive conclusion concerning the apparent increasing difference between Cull and Venison Returns in red and roe deer. However, one hypothesis worthy of consideration may be that of an increasing rise in the trend of estates selling carcasses directly to restaurants et al. This trend appears to be associated with the drop in wholesale prices. At its peak of 1996/97 of £2.45/kg there was only a 3% difference between Cull Returns and the Venison Returns in red deer. Whereas in 2003/04, the year after an all-time low of £0.80/kg, saw a significant rise from 19% to 30% difference in red and 20% in roe. 2005/06 saw the greatest rise to 38% red and 30% roe difference, where prices were still around £1/kg, this period, however, coincides with the awarding of a derogation to hunters under the Food Hygiene Regulations. It is legal for the person shooting the wild game under the Food Hygiene Regulations, to be able to sell "small quantities" of wild game in fur to a final consumer or local retail establishments directly without the need to go through a licensed game dealer; under the European Union Game Meat Regulation derogation.

LOGISTICAL, ECONOMIC AND CULTURAL CONSIDERATIONS

The collection of carcasses in refrigerated vehicles by the game dealers from the supplying estates, was identified as representing a significant overhead cost, estimated to be as much as a third of the processing cost and as a significant factor influencing the wholesale price of wild venison. The dealers identified multiple trips, over long distances and poor roads, often for small numbers of carcasses, with different estates in the same areas each negotiating deals separately with different dealers. Previous attempts to establish co-operatives amongst estate owners, to centralise communal larders and collection points have met with only very limited success. A number of reasons have been given for this including: concerns over other users being less respectful of hygiene standards; the potential of multiple use commercial rateable values being applied by local authorities; and the additional costs associated with sending staff to centralised facilities (which might involve a 20 – 40 mile round trip) after time already spent on stalking that day. It is also notable that co-operation between estates, in terms of shared facilities, is not an established tradition, and this is clearly an influencing factor.

The results from a recent wider case study on integrated deer management, by the Macaulay Institute, concluded that the revenue from stalking is more important than the venison price for estates. This was the result of interviews with stalkers on twelve estates and seven venison processors. Stalkers suggested an expansion of commercial stalking of hinds as a means of increasing culls. But herd management, to maximise the numbers of stags to be shot, is an important consideration given that a sporting stag can add as much as £22,000 to the capital value of the land. This report further concluded that improving financial returns to deer management through the promotion of venison market was not a realistic solution for sporting estates in Scotland because venison production was less important than managing deer for sporting objectives. This implies that incentives to produce more venison compete with those economic and cultural aspects associated with stalking for sport. The report concludes that incentives are therefore unlikely to be as effective as those in the agricultural context. (*Ref: MacMillan, D, Phillip, S, 2009; The role of economic incentives in resolving conservation conflicts: the case of wild deer management and habitat conservation*.)

THE SCOTTISH QUALITY WILD VENISON ASSURANCE SCHEME

The production of quality products is the cornerstone of *A Forward Strategy for Scottish Agriculture*. Quality is considered to be a key element in ensuring a sustainable and competitive agricultural sector focused on producing premium quality products.

The Scottish Quality Wild Venison assurance scheme (SQWV), which relates only to wild venison, was set up in June 2002 following an eighteen month development project commissioned by Forest Enterprise in conjunction with the Association of Deer Management Groups, the Scottish Game Dealers and Processors Association and the Scottish Gamekeepers Association. The term “wild” applies only to managed populations of deer living within defined territories such as forest, hills or parkland, under conditions of freedom. This is a landmark development, being the first occasion of note when both public and private sectors of the Scottish wild venison industry have worked together on an industry wide initiative. The scheme was awarded MDS grant funding by the Scottish Executive to facilitate its promotion and development, certification and accreditation.

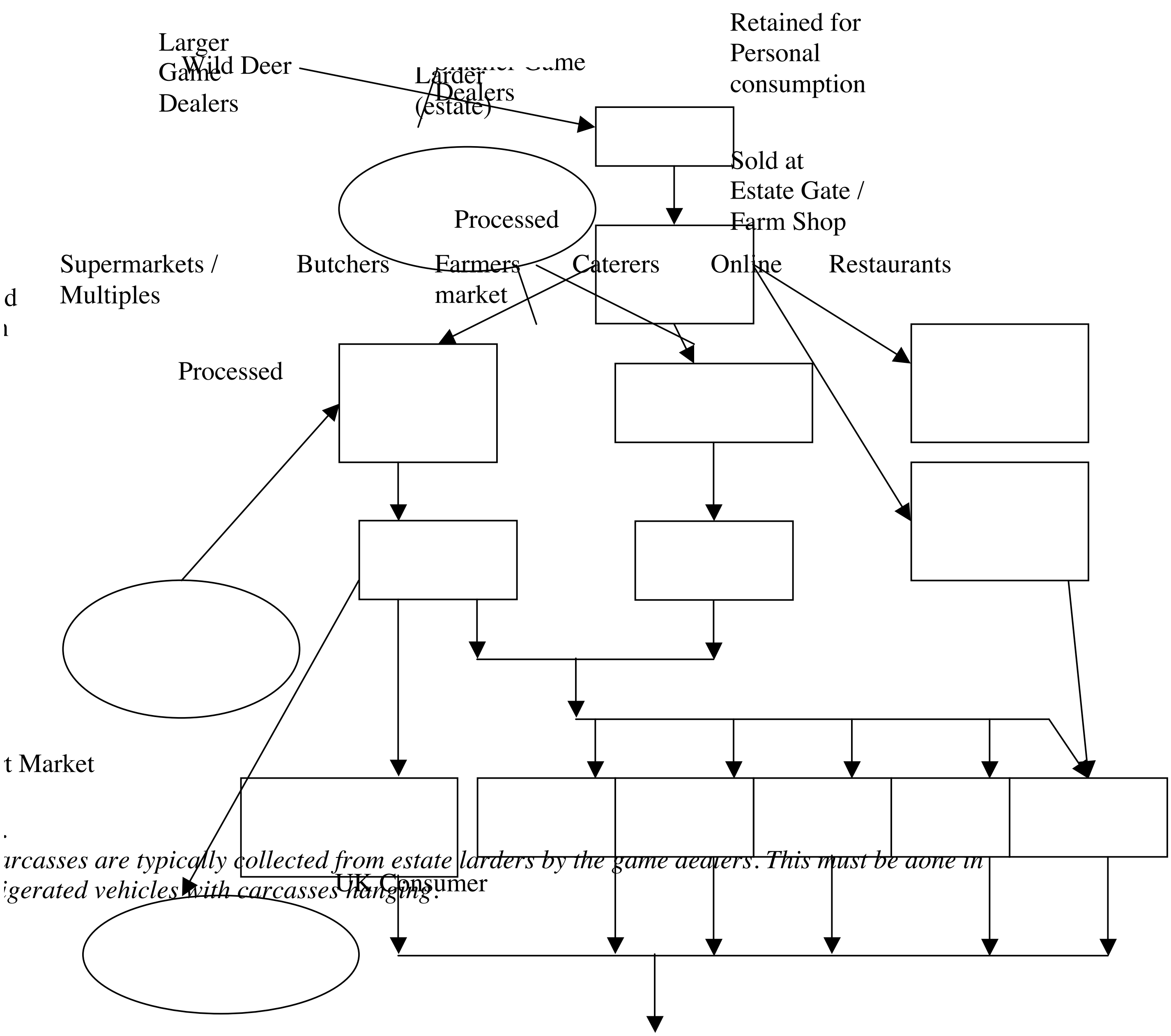
The SQWV’s aims are to ensure that the deer populations are being managed humanely, that those stalkers and gamekeepers managing the deer are competent, that the dispatch and transport of carcase to the larder is well handled, that high food hygiene standards of carcase handling and larder storage are maintained, and the traceability of venison from hillside to plate.

Scheme development was initially reported as being difficult in the early stages, but to date all objectives have been reached, despite reports that initial recruitment of members was much more difficult than had been predicted. The reasons for this were identified as being – the feeling that standards were going to be too difficult to meet, low venison prices without a product price premium for being a member, perhaps reflecting concerns over the costs of membership in association to perceived benefit.

Membership of this scheme is generally regarded as a positive step, although some of those members interviewed during this research said that they felt that the scheme would have more value if it was marketed directly to the consumer, in the same way as British Beef and Lamb are marketed with consumer awareness of the quality assured mark. Whilst the general feeling was that the scheme did not have any benefit in increasing the price of venison paid to the supplier as it currently operates, it was, when you had gone through the initial set-up phase, relatively straightforward and easy to administer. Significantly, members interviewed during the course of this study were unanimous in their view that a quality assurance scheme was the way forward and were therefore inclined to stay within it.

** Collection*
Stalked
by Dealers

THE SCOTTISH WILD VENISON DEMAND CHAIN
Venison
Fig. 13



arcasses are typically collected from estate larders by the game dealers. This must be done in
igerated vehicles with carcasses hanging.

THE MARKET

Findings from a three year LINK research project, sponsored by Defra and the Scottish Government and led by ADAS, found that venison is currently consumed by 8% of the population (2008 survey).

Within the United Kingdom, the venison market is characterised by a small number of major game dealers/processors each of whom is quality assured under the SQWV scheme. This is supplemented by a range of smaller operators from small game dealers to estates and butchers with venison and dealers licenses, many of these are not quality assured through the SQWV scheme.

An important link in the post-dealer distribution network is the wholesaler or food service supplier companies such as and those other wholesalers who distribute into the restaurant or butchery market sectors. The further processed market, where additional value is added through smoking for instance, often have slightly more complex supply chains.

To date dealers/processors and secondary processors have undertaken their own marketing directly, negotiating with the supermarkets/multiples, restaurant and other outlets. This has been largely responsible for generating the current positive profile of Scottish venison. Those dealers and processors interviewed were clear in their opinion of the value of the quality assurance scheme being marketed directly to the consumer, in the same way that the British Beef and Lamb quality schemes have been. This they maintain would assist in driving demand and protect against the possibility of a damaging food scare/scandal.

These dealers/processors have undoubtedly been successful in opening new market fronts with multiples/supermarkets such as Morrisons, Tesco, Sainsbury, Aldi, Waitrose and Marks and Spencer. The supermarket chain Tesco stocks venison in 250 of its stores and confirmed a growing public taste for the product specifically in Scotland, where the number of packs sold per store is higher than elsewhere in the United Kingdom. Whilst Tesco reported an increase in product sales of 70% over the 12 month period 2005/2006 the amount being sold has dipped recently (2008/2009); ASDA, however, reports that sales are holding up well in their stores over this same period.

One large game dealer reports (in the press) that 25% of their business is in the supply of supermarkets/multiples, specifically, Sainsburys, Tesco, Morrisons and ASDA, having only entered this sector in 2007.

Supplying multiples requires consistency of product and volume of supply. Each of the multiples listed above either identify that they supplement their venison with venison from other countries, or in the case of Tesco's Finest® range sell only New Zealand farmed venison. It is an unquestionable observation that as consumer demand increases for venison this will increase the market for New Zealand venison also. Dealers/processors are clear that without the ability to supplement domestic venison with imported venison they would not be able to deliver the necessary consistency of supply to supermarkets/multiples as matters currently stand. One large game dealer reported in a statement to the press in July 2009 that New Zealand venison accounted for 30% of its production.

A limited "snap-shot" survey of high street venison retailing was undertaken as part of this research the results of which are presented within Appendix 2.

An independent butcher interviewed during the course of this research reported a 50% increase in consumers purchasing venison over the last 10 years.

THE ONLINE (INTERNET) MARKET

Online sales from the dealer/processor or secondary processor direct to the consumer are also prevalent and from this research would seem to be an area seen as having scope for further growth. It was not possible to assess the trends and scale of this market within the timeframe of this research, but this is an area that would be worthy of significant further investigation. Online retail is a growing sector and is an important primary source of information and branding for many consumers.

A recently published study by the Future Laboratory for PayPal (*Online Retail: The New Consumer Demand 2009)* reported that 4 in 10 (41%) of city dwellers have increased their reliance on online shopping over the last year despite having access to local shops. This is a movement of 15.6 million people moving their shopping online. Glasgow was considerably greater with 6 in 10 people moving towards online shopping (some 280,000 people).

Rural Britain's Internet Lifeline report, published in Oct 2009, estimated that 4.4 million people in the countryside increased reliance on the internet for shopping over the last year suggesting that 9 in 10 people in the countryside shop online. Interestingly growth in the use of the internet is not confined to any single age group, with 36% of 50 to 69 year olds increasing their shopping online. Online grocery shopping is anticipated to double between 2009 and 2014 with 2009 showing a 13% increase in this area overall and ASDA reporting online grocery sales up 50% in January 2010. (*Ref: IMRG*).

DIRECT SALES UNDER THE EU FOOD HYGIENE REGULATIONS DEROGATION – SELLING AT THE ESTATE GATE

Some producers, typically traditionally smaller producers such as farmers and crofters, sell small amounts directly, under the EU Game Meat Regulation derogation, to local retail and catering markets. However, there is evidence from this research to suggest that more estates are now either doing this or seriously considering doing this. Typically, a greater price can be obtained from doing this; research concluded for this report suggested £2.50 - £3 per kilogram compared with the average £1.50 paid by the main game dealers. This practise was largely criticised by the game dealers, who highlighted the stringent food hygiene requirements that they were obliged to comply with, including collecting the carcasses in refrigerated vans where the carcasses could be hanged while being transported, compared with no such requirements for the producers under this derogation. They also recognised an increasing trend in this area. This was viewed by the game dealers as an area where hygiene or quality failure could easily occur with the consequence that it could damage the industry in the eyes of the consumer – a bad outbreak of food poisoning for instance.

EAT SCOTTISH VENISON DAY

Eat Scottish Venison Day was launched in 2009 and is intended as the focus for a three-year push that, through increased consumer and trade demand, will raise quality standards more widely and should encourage producers to bring more venison to market. This is supported by the Scottish Venison web-site. Press coverage of this event has been positive.

SINGLE SOURCE PROVIDER FROM HILLSIDE TO PLATE – A CASE STUDY

One large estate interviewed acknowledged that direct processing, marketing and selling was an area that they were actively reviewing. However, this was not seen as a venture to be entered into lightly, the cost of a processing plan and qualified staff is not insignificant. Membership of the quality assurance scheme was seen to be a distinct advantage in this context.

One supplier interviewed delivered a complete service from client stalking through processing, to direct marketing and selling to the consumer including as a finished cooked product. Business was growing steadily and he was starting to sell online. At this point in time, the vast majority of sales were through the Farmers Market network and shops and by selling pre-cooked products to the public at Murrayfield rugby events and rock and pop festivals such as "T-in-the-Park". This was proving to be quite profitable and he was noticing a good deal of repeat business, through which consumers were starting to order directly from him over the internet. Importantly, his experience was that offering the public pre-cooked samples encouraged them to purchase the meat and this was also supported by providing cooking instructions or recipes which he intended to do online – advice on how to cook the product was frequently asked.

In terms of the market dynamics, he had seen a 30% drop in sales through the farmers markets over the last year which was felt to be directly associated with the economic recession. Whilst the volume of sales were down the actual sale per customer was holding constant at around £6. This compared with an average sale of £10 - £12 per customer for other meat products (beef and lamb). The costs associated with sales at pop festivals and Murrayfield were high with significant upfront fees but these had proved very profitable.

In marketing of his venison he did not distinguish between species. This was a common observation amongst those interviewed, although the different tastes and qualities were acknowledged and many interviewees felt that selling on a species basis could have some advantages.

The capital cost of processing plant was assisted in part by grant funding from Highland and Islands Enterprise. He also acknowledges the success of marketing activities promotions such as "Food from Argyll", he also marketed with other local food producers such as Loch Fyne and this had proved successful.

SEASONALITY AS A FACTOR

It is estimated that approximately 1,000 tonnes of venison, 800 tonnes from New Zealand and a further 200 from Europe is imported annually into Scotland largely to cover out of season demand. Current labelling laws allow products containing meat that is reared overseas to be labelled as British providing it is processed in the United Kingdom.

Seasonality was identified as a key limiting factor by game dealers and processors. The growing demand from supermarkets / multiples to supply venison puts particular pressure on the limitations of seasonal supply.

THE CONSUMER'S VIEW

Scottish provenance for game is a presumed asset in the quality restaurant and catering sector. Scotland's red deer was voted, in a recent VisitScotland survey, as its most iconic animal – *Monarch of the Glen*. It therefore perhaps follows that Scottish venison should be received by the consumer as a genuine premium product alongside such other products as Scottish whisky, salmon and also beef and lamb.

During the course of this research, a limited scale consumer survey involving twenty interviewees was undertaken, its purpose was to gauge, in general terms, the consumer's attitude and appreciation of venison as a product.

Efforts were made, as far as possible, to select interviewees from the major areas of population density. Interviewees were questioned, using open-ended questioning, either face to face or over the telephone, in a friendly and discursive manner, if they had tasted venison, if so was it something that they regularly purchased, if not attempts were made to find out why not, was it a lack of awareness, opportunity or some other concern.

Those who had tasted and purchased regularly were asked where they had first tasted venison, where they regularly purchased it, i.e. was it from a single source.

Fig 14 Interviewee Demographic Distribution diagram

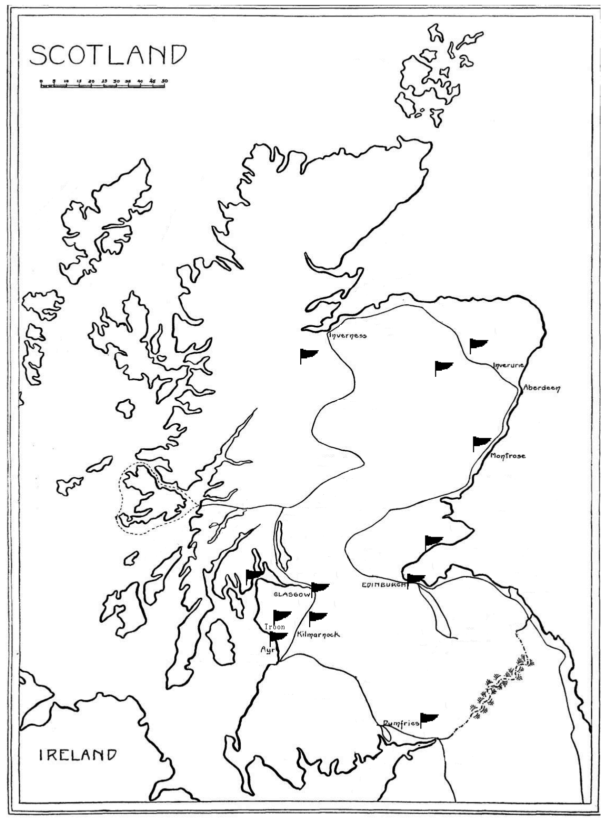


Fig. 15 Age profile of Consumer View sample interviewees

Age Range	25 – 40 yrs	41 – 55 yrs	56 – 65 yrs	66 yrs and above
Number of Interviewees	5 (25%)	8 (40%)	3 (15%)	4 (20%)

(*N.B. The median age of Scottish population is 39 years, 63% of the population is of working age and 20% is older than the state retirement age*)

Five of those interviewed had never bought or tasted venison. Three of whom also had the assumption that venison was a very strong meat, or was difficult to cook and avoided it for this reason.

Fifteen had tried venison and/or were regular purchasers.

- Of this group, four interviewees bought on-line.
- The remaining eleven bought their venison either from the Farmers Market, in supermarkets, or through butchers.

Regularly purchasing venison ranged typically from once to twice per month with shoppers typically spending less than £10 on each occasion. Others who bought less frequently, typically purchased for events such as dinner parties, Christmas or barbeques.

Most interviewees who regularly purchased venison at a supermarket were unaware that the venison was not necessarily Scottish, with many reporting that they did not look closely at the packaging. The general assumption was that because it was a Scottish company supplying a Scottish product that it would be Scottish.

One interviewee, who regularly bought the Tesco's Finest® venison product, was aware that it was a product of New Zealand.

Of those interviewees who did not, or had never bought venison, a common concern was that they believed "it was difficult to cook" or that "they would not know how to cook it". One supplier, Highland Game, prints recipes on the outer packaging.

A point made by a number of interviewees was that typically venison was neither prominently nor well displayed, that you often had to search the shelves in the supermarket to find it.

Many interviewees were also unaware of the health benefits of venison, that there is less fat in venison than there is in a chicken breast.

AN OVERVIEW ANALYSIS OF STRENGTHS, WEAKNESSES, THREATS AND OPPORTUNITIES (SWOT) OF THE INDUSTRY AS IT CURRENTLY STANDS

A SWOT analysis is a useful tool to provide an overview of an industry or organisation – its strengths, weaknesses, opportunities and threats.

STRENGTHS	WEAKNESSES
1. Scottish provenance – brand potential 2. Quality Assurance scheme 3. Health benefits 4. Potential re: environmental and economic sustainability 5. Reduced food miles	1. Supply & production fragmented 2. Transportation & collection costs from producers high and inefficiently co-ordinated influencing wholesale prices 3. Constraints of seasonality – influencing consistency of supply 4. Variable quality 5. Consumers lack of confidence re: cooking & preparing* 6. Traditional view that venison production simply offsets deer management costs
OPPORTUNITIES	**THREATS**
1. Introduce separate species as new product lines, advantages of natural grazing compare Aberdeen Angus 2. For farmed venison *** 3. Export market "premium" Scottish Venison comparisons with Scottish whisky industry marketing strategy 4. From NZ imports – these might help to drive the market.**	1. From NZ imports** 2. Perceived vulnerability to a food scare from rogue supplier 3. Possible contamination from residues

Please note that the SWOT analysis presented here is a high-level analysis, each point under each section heading was considered and weighted against its relative position within the wider industry.

*Please note that although still identified as a potential problem this concern has reduced significantly in recent years following active campaigns of cooking education which appear now to be gaining effect.

**Imports from New Zealand may be seen as both an opportunity and a threat in as much they will help to drive the industry at this critical stage when wild supplies cannot meet demand either through volume of supply or seasonality issues, but a threat in terms of their ability to hold down prices.

***An opportunity to develop and expand.

THE POLITICAL ENVIRONMENT

The political environment that the wild venison industry operates in is clearly linked to its performance.

The existing deer legislation (the Deer Scotland Act 1996) is now considered to be inadequate to meet either existing or expected future needs. In particular, it is felt to be insufficient to encourage or enforce local collaborative deer management, protect the public interest or resolve differences between private interests.

During August and December 2009 the Deer Commission for Scotland undertook a review, at the request of Scottish Ministers, of the existing deer legislation and made a number of recommendations for reform; this was then taken out to stakeholders for consultation. It was noted that the balance of public interest has changed over time as, for instance, the move towards a low carbon economy requires the development of more tree cover and that carbon rich soils are protected from damage. The existing legislation is to be updated through the Wildlife and Natural Environment (Scotland) Bill.

The Scottish Government is aware and supportive of industry initiatives such as Eat Scottish Venison Day whilst a number of other national initiatives and policies lend themselves to supporting the industry.

The launch of *Eat Fresh, Eat Seasonal* by the Scottish Government on 27 January 2010 is an initiative to encourage people to support Scotland's food and drink industry. This comes on the back of Scotland's first national food and drink policy: *Recipe for Success – Scotland's National Food and Drink Policy*, published in June 2009. Its aim is to promote Scotland's sustainable economic growth, by ensuring that the Scottish Governments focus in relation to working with the food and drinks industry, addresses quality, health and wellbeing and environmental sustainability, whilst recognising the need for access and affordability also. The basis of these policies is to identify and encourage ways that food and drink production and consumption can help reduce the impacts of climate change and enrich, rather than deplete Scotland's rich natural resources.

The *Food for Life Campaign* is a voluntary extension of the *Hungry for Success* initiative launched by the Scottish Executive in 2002 and targeted at children and school meals.

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this report is to provide an objective overview of the current position of the Scottish Venison Industry, with particular emphasis on wild produced venison, and further to make strategic recommendations as to how further progress might be made.

This report concludes that the industry has reached an important and critical stage in its development, specifically concluding the following:-

1. Scottish wild venison starts from the advantageous position of being seen as an iconic Scottish brand and this is undoubtedly a strong marketing and branding position.

2. Overall, the industry is characterised by fragmented production (a large number of small producers largely acting independently) and burdened by significant processor overhead costs; principally in terms of carcase collection.

3. A barrier to the development of the industry is that wild venison production is generally considered to be a by-product of the need to manage deer populations and of stalking for sport; with sales of venison often being regarded as a way of defraying these costs. However, there is good cause for optimism of a move away from this traditionally held view, specifically with the success in the establishment of the Scottish Quality Wild Venison Assurance Scheme.

4. The supply of Scottish wild venison is set to remain constant at current levels, at or around 3,500 tonnes per year, for the immediate future.

5. Scotland currently imports around 1,000 tonnes per year predominantly farmed venison from New Zealand (around 800 tonnes). At the moment, these imports largely seem to be associated with seasonal dips in the supply of Scottish venison.

6. The demand for venison is expected to increase, driven by supermarket/multiples and as a direct result of proactive promotion/marketing. Given the already limited, but none-the-less successful uptake of venison by supermarkets, it is reasonable to conclude that this is a developing trend fuelled to a certain extent now by its own momentum. The recognition of venison as a healthy food of choice and the food policies and initiatives of the Scottish Government lend further momentum.

7. A key challenge moving forward is to be able to supply both the volume and consistency / quality of product throughout the year.

8. Continuing to drive and promote demand, specifically where much of the expected growth is towards the high volume and lower price end of the market (a move towards becoming a commodity), is likely to further open up the market to foreign imports.

9. Prices paid to producers are subject to volatility being sensitive to increases in fuel costs, foreign exchange rates (Sterling against the NZ Dollar, for instance) and demand.

10. There is a suggestion of an increasing trend for producers of venison to sell directly to the public under the food hygiene regulations derogation.

11. The Scottish Quality Wild Venison assurance scheme (SQWV) is well regarded, with a generally held opinion amongst members that such a scheme is the way forward. Many expressed an opinion that greater value could be extracted from the scheme if it could directly influence retail venison prices, by being promoted directly to the consumer.

Demand for wild venison is clearly increasing whilst the expected supply is projected to remain constant for the foreseeable future. At this critical stage, to do nothing does not represent an option going forward for the industry. The growing demand for venison will be taken up by imports. This coupled with a failure to drive down inefficiencies and to promote wild venison as a premium brand will inevitably lead to a lowering of the price paid to the producer. This may also lead to an increase in the levels of wild venison being sold directly to restaurants etc by producers – possibly further serving to fragment the industry.

Recommendations

The following strategic recommendations are made for further consideration and exploration as possible steps in the development and progression of the industry.

Consideration should be given to:-

1. A co-operative scheme to facilitate efficiencies and drive down operating overhead costs such as larders and collections. From a practical perspective a pilot scheme, perhaps in the central belt for roe deer for example, could be established in the first instance, to iron out difficulties and so allow the industry to assess its wider value.

2. The possibility of ranching / wild deer parks should also be explored in greater detail. For ranching on hill farms (as an alternative to sheep), calves could be introduced, for instance, from wild populations and allowed to graze freely within managed areas. It might be possible to describe this product as being wild, and certainly as having led a wild/free life.

3. The Scottish Quality Wild Venison assurance scheme could be extended to develop a stronger wild venison consumer brand by promoting it directly to the consumer both nationally and internationally with a consumer targeted quality assurance branded labelling system.

4. Promoting and developing farmed venison, including extending the Quality Assurance Scheme to include Scottish farmed venison. Farmed venison should also be included with any co-operation scheme as a means of driving industry wide efficiencies.

5. Developing a mobile abattoir service (the lack of abattoirs in Scotland for deer is a significant problem) possibly where animals could be professionally shot on the farm (with vet inspection etc) and then collected perhaps by the co-operative.

6. The establishment of an education and research facility or Institute, the purpose of which would be to promote venison as a product to the wider public through a farm park type of structure with cooking demonstrations and similar such events taking national responsibility for promoting venison as a health choice product. This could be backed by future scientific and applied deer management, husbandry and other research education.

APPENDIX ONE

Fig 16 Those people interviewed during the course of the research for this report

Business	**Contact**
Main Game Dealers	
Yorkshire Game Ltd	Richard Townsend
Rick Bestwick Ltd	Rick Bestwick
Highland Game	Christian Nissen
Secondary Processors	
Reediehill Deer Farm	Nichola Fletcher
Winston Churchill	Winston Churchill
Braehead Foods	Craig Stevenson
Forestry Management	
Forestry Commission	Willie Lamont
Scotland / Forest	Michael Hymers
Enterprise	Andy Leitch
Deer Farmers	
Glen Strathfarrar	Frank Spencer-Nairn
Reediehill Deer Farm	Dr John Fletcher
Estates	
Atholl Estates	David Greer
Ardnamurchan	Niall Rowantree
Innerhadden Estate	Leo Barclay
Glen Tanar Estate	Colin McClean
Dalhousie Estate	Richard Cooke
Deer Management	
Fife Roe Group	Robert Balfour
Butchers	
Brymer the Butchers	Bruce Brymer
Other Contacts	
SRPBA	Doug McAdam
Scottish Gamekeepers Association	Alex Hogg
SE (Formerly SDI)	Mike Hambly
Tesco Supermarket	
Morrison Supermarket	

APPENDIX TWO

Retail prices were compared with those of the independents such as the farmers market, online (direct) suppliers and independent or small chain butchers, over the principal four retail product ranges – from burgers and sausages through to casserole steak and venison steaks. The results are presented in the table (fig 17) below. Figure 18 calculates the cost per kilogram of venison used within these products.

Figure 17 Retail Price Positioning of Products

Supplier	Burgers Mean £ /weight	Sausages Mean £ /weight	Casserole Steak Mean £ /weight	Venison Steak Mean £ /weight
Supermarkets	£2.43 / 219g	£2.68 / 360g	£3.00 / 300g	£5.68 / 252g
Non-multiples	£2.26 / 223g	£2.95 / 200g	£5.73 / 462g	£6.32 / 307g

Figure 18 Average price of venison per kilogram of venison used in each of these products

Supplier	Burger (price per kg) £	Sausages (price per kg) £	Casserole (price per kg) £	Venison Steak (price per kg) £
ASDA	9.34	-	10.00	20.00
Tesco	9.44	7.40	10.00	23.04
Morrisons	9.16	-	10.00	-
Sainsburys	12.29	7.40	-	21.96
Waitrose	11.77	7.50	-	23.96
Average price	**9.91**	**7.43**	**10.00**	**22.24**
Farmers Market	8.80	14.75	10.00	18.75
Butcher	9.20	-	12.50	32.22
Online Sales	13.47	14.75	11.90	19.00
Average price	**10.47**	**14.75**	**12.72**	**23.32**

In general terms, with the exception of sausages, the retail prices of each product type were broadly comparable, as would be expected. However, the price per kilogram of venison in these products was slightly higher in the case of the independents/non-multiples.

APPENDIX THREE

NEW ZEALAND VENISON INDUSTRY STRATEGIC INTENT 2009 – 2014

Extracts from the strategic intent document published in May 2009.

Strategic Aim: improve the linkages between New Zealand producers and customers to achieve growth and stable profitability for the New Zealand Venison Industry.

The five key industry strategies are:

1. Continue to create demand-led premium positioning for New Zealand venison. To create growth, improve demand and increase profitability.

The industry is focusing on diversifying the customer base where it is profitable to do so. Identification of customers willing and able to pay higher prices, and alignment of marketing strategies with affluent customers' demands mean that venison is being positioned to capture the best return from the market. New Zealand venison processing and marketing companies are pursuing a variety of tactics to continue to position New Zealand venison as a premium food.

This includes: niche segments; differentiated products – to meet specific market needs; demand pull, category promotion – where consumers are being targeted about the availability of NZ venison.

2. Take action to achieve long-term sustainable returns to the industry. To reduce volatility.

To reduce fluctuations in supply and prices and enhance stability the industry intends to: encourage supply committed marketing programmes.

- Improve year consumption, specifically targeting post-Christmas European consumers through both retail and food services where these alternative markets provide returns equivalent to selling New Zealand venison as a seasonal speciality, but fit NZ's production system better.
- Provide the farming sector with greater certainty about future prospects to encourage supply in line with demand.
- Clear, long-term signals need to be provided up and down the supply chain to attempt encourage more long-term thinking from producers to reward long-term commitment to the industry.
- To improve returns from venison co-products.
- Over the long-term, establish demand for NZ venison ahead of expected increases in supply, not in response to increases.
- Maintaining the awareness of NZ venison in core markets through periods of low supply to assist the premium positioning and prepare markets for future volume increases.

3. Increase on-farm productivity. To reduce costs, lessen waste and improve profitability.

- Identify technology and management techniques that will enhance the venison industry's productivity.

- Communicate these productivity improvement measures to producers.

4. Review measures to encourage long-term commitment to market development. To encourage orderly marketing.

- Raise industry awareness as to the seriousness of the issue and support commercial resolution of the issue.

- Publication of venison marketing companies' activities to position NZ venison and alignment with industry objectives.

- Industry discussion on ways to encourage long term commitment to market development.

5. Ensure the industry has freedom to operate. To protect the industry from regulatory and market threats.

- Appropriate industry working groups are maintained to ensure issues can be addressed as they arise.

- Commercial QA programmes cover off industry basics so statements on industry's behalf have credibility.

- Compilation of statistics on production of companies with QA programmes and proportion of national throughout under some QA programme. Examination of issues not universally covered through companies QA schemes.

- Continue to object to the cost of the ETS and any other environmental impost which constrains the industry without meeting a clear benefit.

- Continue monitoring for and taking action to exclude animal health issues such as CWD from the nation.

European restaurants serving Game in the northern hemisphere autumn remain the cornerstone of demand for the NZ industry

Most venison is still consumed in the traditional European season between October and December.

Large volumes of venison are exported over the NZ summer and autumn, arriving too late for the peak consumption season.

Large volumes of NZ venison are exported in frozen storage in Europe till the game season.

Venison is still not considered a summer meat by the majority of German consumers.

Venison remains an exotic product, untried by large portions of society in all main markets.

Fawn survival to sale remains low in comparison to other livestock species.

APPENDIX FOUR

DEER FARMING

It was almost 40 years ago that the first commercial deer farms were established in the UK and New Zealand. In the UK there are now approximately 35,000 farmed deer compared with approximately 1.5 million in NZ. Deer farming in the UK has developed despite a lack of grant or other subsidised support in an otherwise support-dependent livestock sector of agriculture. Deer have proven there ability to adapt well to different management practices including being housing during the winter, subjected to rotational grazing and regular handling. In this respect they behave no differently from sheep. The low labour regime means that deer farming can easily compliment other farming enterprises and dairy farms with existing buildings are reported to be ideal for conversion to deer.

Farming systems

There are two basic systems for enclosed deer, although many farms fall between the two.

Park Deer are raised in a park setting where they are able to roam freely with minimal input. They may be provided with some supplemented feed, calves are unlikely to be weaned, nor antlers removed, stock is not housed and management is generally with a rifle. When contact with deer is minimal, they may be classed being wild and not farmed and as a consequence the slaughter and carcass handling procedures are those applicable to wild deer. It should be noted, that some parks consider their deer to be farmed and follow the requirements for farmed deer at slaughter.

Farmed Deer may be farmed following the conventional agricultural practices, including organic, grazing is rotated, some or all stock may be housed in the winter. Nutritional and mineral supplements are provided when necessary and injuries and health problems receive prompt veterinary attention. Calves are usually weaned, antlers, certainly of the young stock, are removed on safety grounds.

Deer farmers following this system of husbandry fall into several categories.

Calf rearers – produce calves for finishing elsewhere, the calves will either be moved a month or so after weaning (Nov/Dec) or at the end of the winter to be turned onto summer grazing. Handling facilities may be limited to a collecting yard, small pens and means of shedding off the calves and splitting the hinds into management groups with the majority of stag claves being sold as stores for venison; hind calves may be sold as either stores for venison or kept for breeding stock replacements.

Calf finishers – buy calves for finishing on summer grazing and may house them in the first winter. If stock is to be sent off to slaughter, the yearling stags will require their antlers to be removed in the early autumn prior to being transported. Whilst a small proportion of stags may be sold on as breeding stock, for the majority the primary route is as venison.

Breeder finishers – produce calves and finish them, a proportion of the progeny will be for breeding stock replacements.

Producers, processors – a proportion of producers also retail their own stock, they will usually slaughter on the farm and may either have the carcass dressed at a local abattoir or in their own farm processing facility.

In general, the majority of stags are slaughtered at 15 to 17 months of age, hinds are a little older but the maximum age at slaughter for prime stock is 27 months. A grass finished 15 month old stag should weigh about 100-110 kg (live weight) with a dead weight of 53-60 kg. Yearling hinds are likely to have a live weight of 65-80 kg. Whilst yearlings can be rutted production rates may be less than the 90-95% anticipated in mature hinds. However, hinds of up to 10 years are still reliable producers of quality calves. A mature stag can rut a single sire group of 30-40.

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